

## **Pedagogical Instructional Strategies and Hyflex Learning in Higher education institutions of Delhi NCR**

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### **Abstract**

HyFlex is an instructional approach that combines face-to-face (F2F) and online learning. Each class session and learning activity is offered in-person, synchronously online, and asynchronously online. Students can decide how to participate. Pedagogical instructional strategies entail developing learning spaces that encourage interaction and conversation through different hyflex like Direct Instruction, Interactive Instruction, experiential learning, and independent study. The present paper studies the instructional strategies of hyflex in Higher education institutions of the Delhi NCR.

**Key words:** Hyflex learning, Pedagogical instructional strategies

### **Introduction**

Lectures, films, group work, and games are pedagogical instruction methodologies. Depending on how it is implemented, nearly any technique can be teacher-, learner-, or learning-centered. This strategy entails developing learning spaces that encourage interaction and conversation through different hyflex like Direct Instruction, as well as Interactive Instruction, experiential learning, and independent study, as the name suggests. HyFlex, is an instructional approach that combines face-to-face (F2F) and online learning. Each class session and learning activity is offered in-person, synchronously online, and asynchronously online. Students can decide how to participate. HyFlex allows students to choose in-person instruction or online instruction in real-time from a remote location (Beatty, 2010).

### **Background of the study**

Lucas Kohnke & Benjamin Luke Moorhouse (2021) COVID-19 has led to dramatic changes in the way teachers teach and students engage in higher education (HE). To cater for social distancing and learners' diverse needs, including being in different geographical locations from their HE instruction, different modes of teaching and learning have been adopted. One such mode is HyFlex. HyFlex sees teachers teaching students at the same time in a physical classroom and synchronously online through video-conferencing software. This small-scale exploratory study considers the experiences and perceptions of nine post-graduate students who attended a six-week course delivered through HyFlex. Findings suggest that while there were communication challenges between students who attended through different modes, participants did appreciate the flexibility it afforded. The utilization of various features of the video-conferencing software and other digital tools were also effective.

Shek, D.T.L., Zhu, X., Li, X. et al. (2022) reported an evaluation study on a leadership subject in Hong Kong delivered via HyFlex teaching using a post-lecture evaluation strategy. In one of the lectures, we covered law-abiding leadership in university students, including abiding by the Hong Kong National Security Law. The post-lecture evaluation showed that students generally held positive views toward the HyFlex teaching and they perceived that the subject promoted their well-being indexed by psychosocial competence. Regarding the lecture on law-abiding leadership, students agreed that the lecture promoted their psychosocial competence, personal development, knowledge about law-abiding behavior and national security (including the Hong Kong National Security Law), and readiness to serve as socially responsible leaders. Positive perceptions of the lecture design, teacher performance, lecture content of law-abiding leadership and national security, and benefits positively predicted students' overall satisfaction with the lecture on law-abiding leadership and national security.

Beatty, B. (2007) focused on one of the most important aspects of HyFlex, understanding student participation patterns when students have legitimate choices among classroom, fully online, and any hybrid mix of the two. Limited to relatively small graduate seminars (average N=11), the overall participation pattern is reported to be approximately 60% classroom, 30% online (all asynchronous for this study) and about 10% non-attendance. A major challenge reported in these classes was having very few students – on average – participating in online

asynchronous discussions from week to week, potentially limiting the effectiveness of this instructional activity in supporting deep learning.

### **Objectives of the study**

1. To find out the extent of use of pedagogical instructional strategies in hyflex learning by teachers
2. To find out whether there is any significant difference between male and female teachers in use of pedagogical instructional strategies during hyflex learning

### **Methodology**

The present study utilizes a quantitative collection of data through questionnaire in Google Forms randomly. The data were collected from 82 teachers of different higher education institutions in Delhi NCR. The Questionnaire consists of 15 questions in likert format 5 point scale relating to the usage of pedagogical instructional strategies in relation to hyflex learning. The teachers had also given personal views when asked for via phone on certain aspects of hyflex learning. The data were analyzed using percentage analysis and t test.

### **Analysis and Interpretation**

#### **Objective1:**

To find out the extent of use of pedagogical instructional strategies in hyflex learning by teachers percentage analysis was adopted

The percentage analyses of different questions like,

The kind of method used in hyflex learning mostly in the higher education institution reveals that most teachers almost (86%) are in favor of direct instruction strategy rather than for hyflex.

The hyflex however is found to be an effective strategy (92%) as per the opinion of teachers in the pandemic times were there were restriction on the physical lecture hours and the number of students taking part in the lectures.

The question on inclusion of hyflex strategy as a best practice in higher education institution had little acceptance (36%). Most teachers (64%) viewed offline mode to be the best method

The question on teacher effectiveness in classroom (43%) suggested that teacher effectiveness comes down in hyflex situations as the teachers were not able to have a direct interaction with the students in face to face at most of the time for the children preferred online interaction than being physically present in the classrooms.

On the question of participation of students in hyflex learning the teachers(67%)viewed children to be actively involved in the online offline hyflex mode of learning however 20%) of teachers viewed that hyflex learning was not effective in ensuring student participation. The rest of the teachers (13%) preferred not to answer the question.

On the question of mostly adopted pedagogical strategy in Hyflex learning most of the teachers were using LMS provided by the institutions(76%) while the rest of the teachers were comfortable with the use of web conferencing tools like Google meet and zoom(24%) in the online teaching during hyflex for content delivery

When asked on the timing of students being asked to attend offline lectures the teachers (91%) opined that the offline lectures during COVID times were dependent on COVID restrictions and the students were reluctant to attend the classes' offline.

Relating to the assignment completion after the content delivery in the hyflex teachers(56%) viewed the hyflex model is unable to ensure the assignment completion without the regular reminders sent by teachers and instructions given to students online and during offline lectures. The offline mode is thought to be better in holding students to complete the assignments within a time frame.

Relating to the question on Parental involvement in the extended help in Hyflex learning the teachers(88%) opined that the parents were mostly involved in providing the gadgets to their wards and ensuring their participation in the online mode of transaction however the parents were against sending children for face to face class during the even subsiding phase of COVID 19 since they were protective caring, and ensuring safety of their wards from being infected by COVID 19.

The help extended by the management of the institution in forwarding the flexible learning the teachers (94%) opined that the management helped in getting the needed LMS and rendered help in up skilling the teachers to deliver content through online. The pandemic brought together management and teachers to fight for the cause of learning in the face of COVID. Certain management reduced the wages of the employees to half while some held the wages for two to three months which led to migration of employees from one institution to the other.

On pedagogic content transaction effectiveness in the online mode (57%) teachers viewed it to be effective but the rest (43%) viewed the content transaction to be monotonous at beginning of the pandemic and for removing this the teachers began to use OER, animations, case studies etc to hold on the student interest to the particular lectures delivered.

On the assessment of the pedagogical content delivered the teachers were not satisfied with the online mode of assessment (71%) while the remaining (29%) teachers were satisfied with the online mode of assessment.

On the overall enjoyment during the pedagogical content transaction in Hyflex learning the teachers (11%) viewed that online learning to be very enjoyable in content transaction while the majority (72%) viewed offline method to be the most effective and enjoyable in pedagogic content transaction while the rest (17%) viewed Hyflex to be enjoyable in pedagogic content delivery.

**Objective 2:**

To find out whether there is any significant difference between male and female teachers in use of pedagogical instructional strategies during hyflex learning

**For the second objective t test was done on the overall sample which consisted of 59 female teachers and 24 male teachers**

Gender	Number	Mean	Standard deviation	C.R.	Level of significance
Female teachers	59	24.55	11.53	1.29	Not significant
Male teachers	24	21.20	8.25		

The calculated value of C.R. is 1.29 and is not significant at 0.05 level (C.R. = 1.29;  $p > 0.05$ ). Two-tailed P value equals 0.1997 this difference is considered to be not statistically significant. Hence the mean of the Male prospective teachers do not differ significantly from that of the Female prospective teachers in the opinion of teachers in relation to the pedagogical instructional strategies during hyflex learning.

**Conclusion:**

The study reveals that hyflex classrooms are effective strategy in places where direct instruction in the normal classrooms cannot take place however the hyflex classrooms with pedagogical instruction strategies are not fully welcomed by the teachers as it affects the teacher effectiveness and the conduct of the classroom. From the above results although flexible learning is an alternative mode of teaching during pandemic times as part of pandemic pedagogy it cannot in any way replace the face to face interactions unless a self-initiation and thirst for knowledge from the side of the student exist.

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